

***STATEWIDE
ROAD SYSTEM –
OTHER
IMPROVEMENTS***

ENVIRONMENTAL IMPROVEMENTS**PROJECT SCOPE/DESCRIPTION:**

1. Wetland mitigation monitoring requirements typically include 20-year site management/assessment to assure successful creation of wetland resources created as impact compensation for various capital projects. Monitoring typically requires monthly hydraulic data collection, fall site sampling for vegetation assessment, annual reports for five years and then summary reports at the 10, 15, and 20 year marks. The funding estimate also includes a contingency for site remediation that may include: additional fertilization, seeding, planting, and site re-grading as necessary to assure the establishment of a viable wetland plant and hydrologic characteristics.
2. Specific mitigation projects now underway include:
 - SR 1 Dover – Smyrna, nine individual sites, 324 acres, seeding/monitoring
 - Ogletown mitigation, three sites, 18 acres, final planting, monitoring
 - First State Boulevard, one site, 2.5 acres, monitoring/fertilization
 - US113 Georgetown to Milford, one site 100 acres, monitoring
 - SR 1 northern segments seven sites 160 acres, monitoring
 - Scarborough Road, one site six acres, monitoring
 - Porter Road, one site, 12 acres, monitoring
 - SR 48, one site, 1.6 acres, monitoring
 - Naamans Road, five sites, one acre, monitoring

The picture below is the Eskridge Wetland Site



ENVIRONMENTAL IMPROVEMENTS (CONTINUED)

3. A contingency for environmental remediation is also provided to permit unforeseen environmental problems to be addressed as they are identified.
4. Archeological data analyses and report preparation time frames frequently extend beyond completion of the capital project for which the archeological compliance was mandated. This project element provides for: data analysis, report preparation, publication, and a contingency for follow through with human remains notification and reburials associated with this requirement. Current specific archeological elements include:
 - Ogletown Interchange
 - US113 Georgetown to Milford
 - SR 1 southern segments
 - Porter Road

PROJECT JUSTIFICATION: Permits DelDOT to comply with environmental and cultural laws and regulations as projects are implemented.

County: Statewide

Municipality:

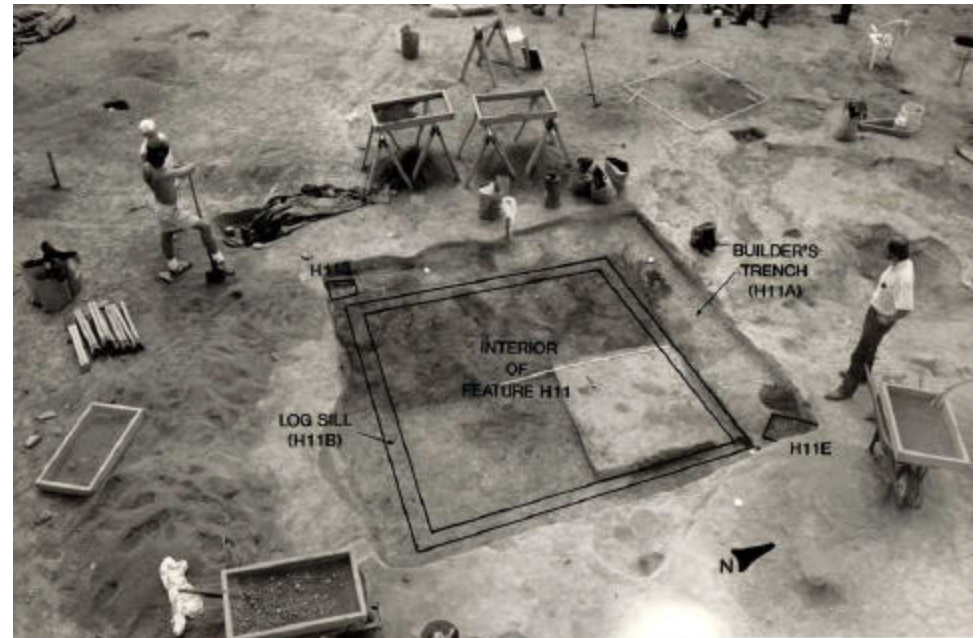
Funding Program: Road System – Other

Functional Category: Preservation

Representative District: Statewide

Senatorial District: Statewide

The picture below is an example of an archeological investigation by the Department



The John Powell Family farmstead site, early settlers of Kent County. The husband, wife and seven children lived adjacent to Alston Branch and the Leipsic River between Dover and Smyrna from 1691 – 1735.

ENVIRONMENTAL IMPROVEMENTS (CONTINUED)***Funding Information***

INDIVIDUAL PROJECT SEGMENTS	EST COST TO COMPLETE IN TODAY'S \$	FUNDING	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Environmental Improvements	4,800	100% ST		800	800	800	2,400
SR141 at Newport	4,000	100% ST					4,000
SR 1 Environmental Improvements	1,400	100% ST		200	200	300	700
UST Cleanup/Future Replacements	1,100	100% ST	500	100	100	100	300
Wetland Mitigation,	1,420	100% ST	800	160	160	150	150
Archeology	<u>1,150</u>	100% ST	<u>250</u>	<u>150</u>	<u>150</u>	<u>150</u>	<u>450</u>
TOTAL	13,870		1,550	1,410	1,410	1,410	8,000

All \$ X 1,000

MATERIALS AND MINOR CONTRACTS FOR INFRASTRUCTURE PRESERVATION

PROJECT SCOPE/DESCRIPTION: This request expands the capability of the operating districts to maintain the state's roadways through the development of unit price contracts for small to medium projects. Examples of capital repairs and minor improvements that would be funded by this program include: contracts for adding minor turn lanes at intersections; concrete pavement repairs; repair/replacement of curbs; gutters and sidewalks; traffic control devices (including those necessary for pedestrian, transit and bicycle access); rotomilling; crossover modifications; guardrail installations; and drainage improvements. Annual unit price contracts are issued for various types of work so when specific needs are identified they can be addressed quickly. These are projects and programs which require no acquisition of right of way; minimal design; no location and/or environmental studies or permits; and are administered by the maintenance districts. As stand – alone projects are identified, they will be listed as separate projects in the CIP and funds will be deducted from this program.

Necessary replacements of sign structures, high mast lighting, and traffic signal supports replacements are completed as a part of the Sign Structure Inspection Program.

National Pollutant Discharge Elimination System (NPDES): DelDOT, and other entities operating stormwater discharge systems in northern Delaware, must meet the requirements of the Federal Water Pollution Control Act (FCWA) with regard to discharges from these systems into federally-protected waterways. Most of the requirements relating to satisfying this mandate relate to the proper maintenance and operation of the existing storm water discharge system. Capital funding, however, has also been set aside to address needed repairs that fall outside the scope of the Operating Budget. The Department reports to the Legislature quarterly on the status on this program, with a specific emphasis on expenditures.

MATERIALS AND MINOR CONTRACTS FOR INFRASTRUCTURE PRESERVATION (CONTINUED)**PROJECT JUSTIFICATION:** Funding is provided to address minor capital problems throughout the year at the maintenance district level.

County: Statewide
Municipality:
Funding Program: Road System – Other
Functional Category: Preservation
Representative District: Statewide
Senatorial District: Statewide

INDIVIDUAL PROJECT SEGMENTS	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Materials & Minor Contracts	100% ST	2,410	160	450	450	450	900
NPDES	100% ST	1,418	395	150	158	165	550
Traffic Structure Replacement	100% ST	700	100	100	100	100	300
Drainage Program							
Bowers Beach Improvements – North	100% ST	255		255			
Saulsbury Road	100% ST	220		220			
Greenspring Road and Vandyke Road	100% ST	<u>176</u>	<u> </u>	<u>176</u>	<u> </u>	<u> </u>	<u> </u>
TOTAL		2,769	655	1,315	708	715	1,750

All \$ X 1,000

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS

PROJECT SCOPE/DESCRIPTION: Design and construction of bicycle and pedestrian facilities, transit access, park and ride facilities, traffic calming, and other non-motorized transportation projects. Projects funded from this program over the six year include -- but are not limited to -- those listed below. Additional projects will be identified over the six year period and recommended for funding by the Department's Project Development Committee (PDC) and state MPOs.

Traffic Calming

Current temporary traffic roundabout at Mifflin Road in Dover



Visualization software showing future permanent roundabout at Mifflin Road in Dover



INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

PROJECT JUSTIFICATION: To enhance multimodal transportation throughout the State and encourage movement of people and goods through other than single occupant vehicles.

County: Statewide
Municipality:
Funding Program: Road System – Other
Functional Category: Management
Representative District: Statewide
Senatorial District: Statewide

INDIVIDUAL PROJECT SEGMENTS	PHASE	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Traffic Calming	PE/C PE/C	100% ST 80% F – Q21	1,100 1,600	364	336	400		
• Mifflin Road Roundabout	PE C	100% ST 100% ST	36 64	36	64			
• Harvey Road – Marsh Road to Sconset Rd	C	80% F – Q21	850			850		
		TOTAL	3,650	400	400	1,250	400	1,200

Funding for Traffic Calming was established in the FY 2000 Bond Bill. As projects are identified, they are funded from this funding line.

- A permanent roundabout will be constructed on Mifflin Road at the intersection with Woodmill Drive to slow traffic through the development.
- The Department's Planning Division is currently working with the Towns of Arden and WILMAPCO to develop an equitable solution for slowing traffic along Harvey Road from Marsh Road to Sconset Road.

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

US 13 and Townsend Boulevard, Dover - Improvements will include installation of sidewalk on US 13 NB and SB from Loockerman Street to Division Street and US 13 NB & SB from White Oak Road to Townsend Boulevard. Work will also include curb replacement and minor drainage improvements.

US 13 from Townsend Boulevard to Delaware State University – The next phase of the above project will be constructed in FY 2004.



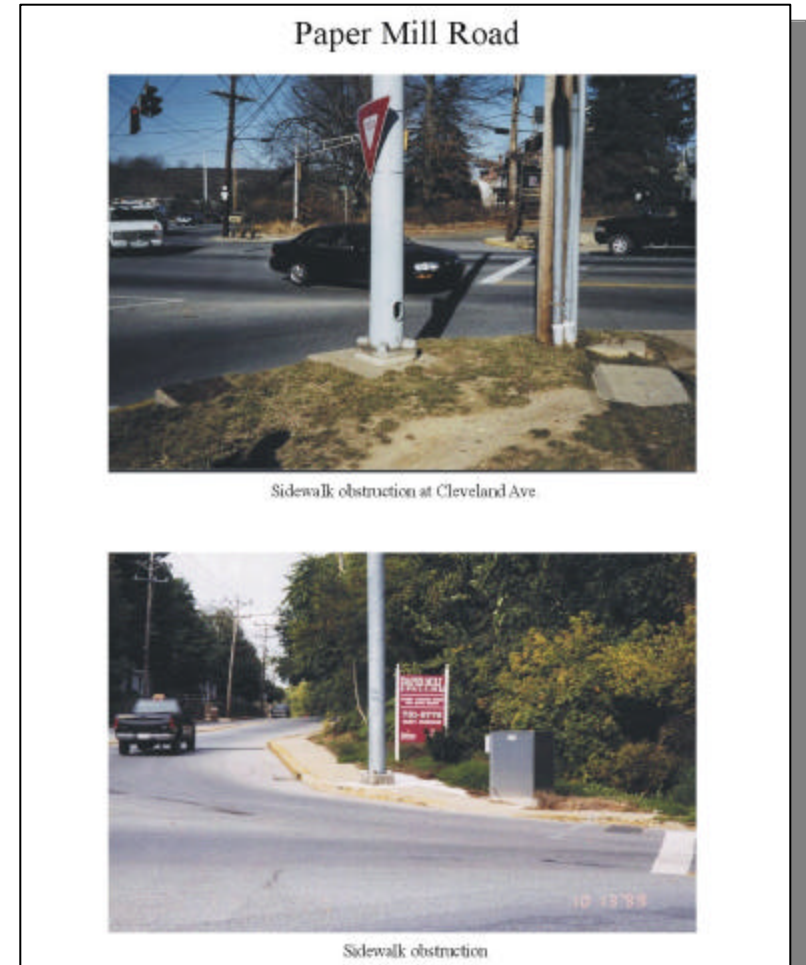
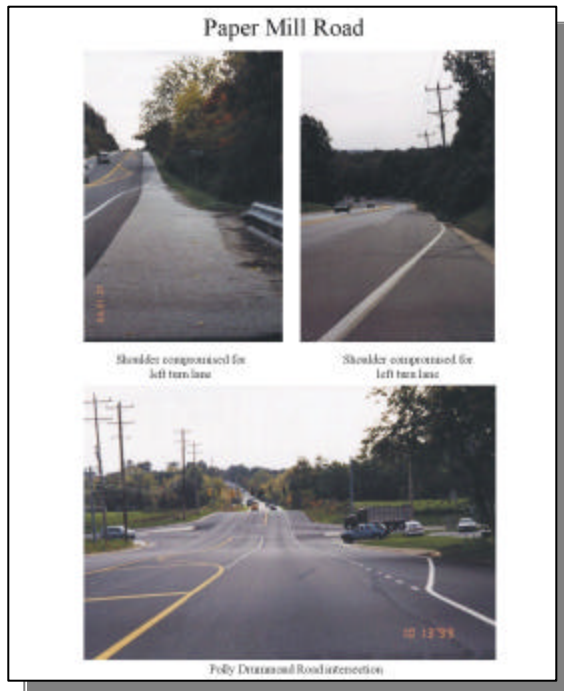
SR141 / SR 2 (Prices Corner Pedestrian Improvements) – Improvements will include construction of a new pedestrian facility on Kirkwood Highway and Centreville Road to provide safer travel for pedestrians and transit customers. Specific improvements are construction of sidewalks, a signalized pedestrian crossing at the intersection, median modifications, landscaping and crosswalk striping.



INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

SR 72 Bikeway Extension (Picture not available) – Improvements will include extension of the current off-road bikeway from I-95 to Dayett Mills entrance with a fence barrier between industrial parking and bikeway extension. A pedestrian signal and crosswalks will be installed at Old Baltimore Pike and SR 72 intersection.

SR 72 (Paper Mill Road), Newark from Cleveland Avenue to Ebenezer Church Road - Improvements will include widening at intersections for bike lanes and installation of pedestrian crossings at Cleveland Avenue, Possum Park Road, and Ebenezer Church Road.



INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

Iron Hill Bikeway – involves the construction of a shared bicycle and pedestrian pathways adjacent to SR896 and I-95 separated from the roadway between Old Baltimore Pike and Bridge 701 over I-95 on Welsh Tract Road. The bikeway will transition from the service road bikeway on the west side of SR897, across Old Baltimore Pike, adjacent to SR896 and along the I-95 ramp on an existing cleared utility easement to Welsh Tract Road. The majority of this utility easement is currently used as a trail and is part of the Mason Dixon Trail system. Also included will be a signalized pedestrian crossing at Old Baltimore Pike and a designated trail crossing on Welsh Tract Road to improve the safety of bicyclists and pedestrians crossing the roadways.

Del Tech – Georgetown SR 18 – project is located on SR 18 from milepoint 18.12 to 18.96 and involves the construction of a five foot sidewalk and pedestrian crossing adjacent to SR 18 between Del Tech and downtown Georgetown. A signalized pedestrian crossing will be provide across US113 on the eastbound side of SR 18 and the southbound side of US113. Existing curbing will remain from college entrance to US113.

Route 18 - Georgetown



US 113 - Right Turn Lane



US 113 Intersection

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)***Plantations Road Bike Lanes***

Recent improvements on Plantations Road have included markings for bike lanes throughout the length of the roadway. However, northernmost section at Lowes does not have a marked bike lane.

Plantations Road Bicycle Lanes

Typical roadway section with 2.4 meter
shoulder



Approach to Route 24 intersection with 2.4
meter foot shoulder

Plantations Road Bicycle Lanes

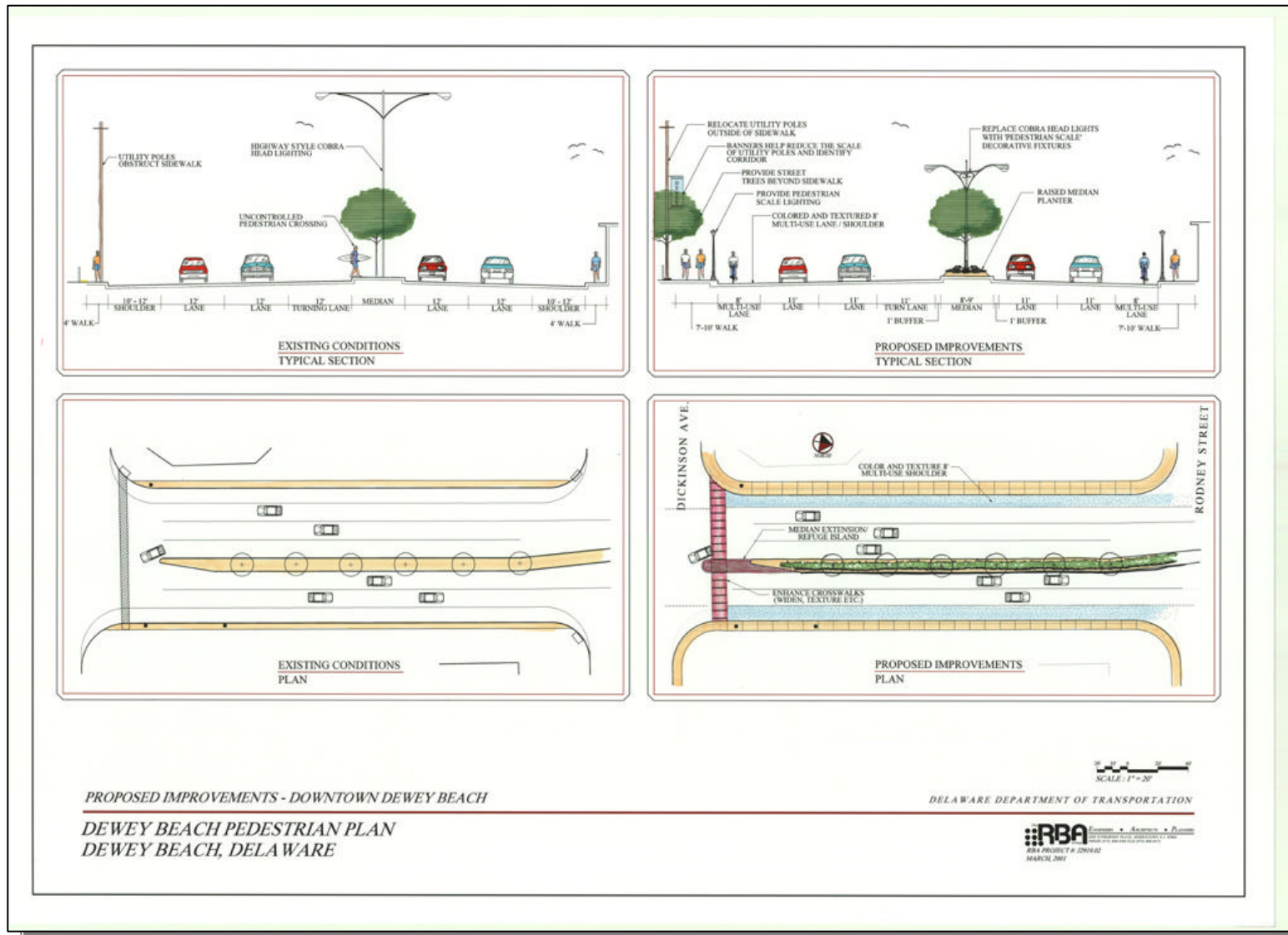
Approach to Plantation Blvd.
Intersection, Shoulder compromised for
right turn lane



Three lane approach to Route 24
Intersection

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

SR 1, Dewey Beach Improvements - The Dewey Beach Pedestrian Plan provides a concept for the improvement of seasonal pedestrian travel on and across SR 1 and SR 1A. The project limits extend from the Dewey Beach border in the north at the intersection of SR 1 and Bayard Street, to the Dewey Beach border in the south just below Collins Street. The corridor branches off along the coast, and includes SR 1A from the intersection with SR 1 north to the Rehoboth border at Silver Lake.

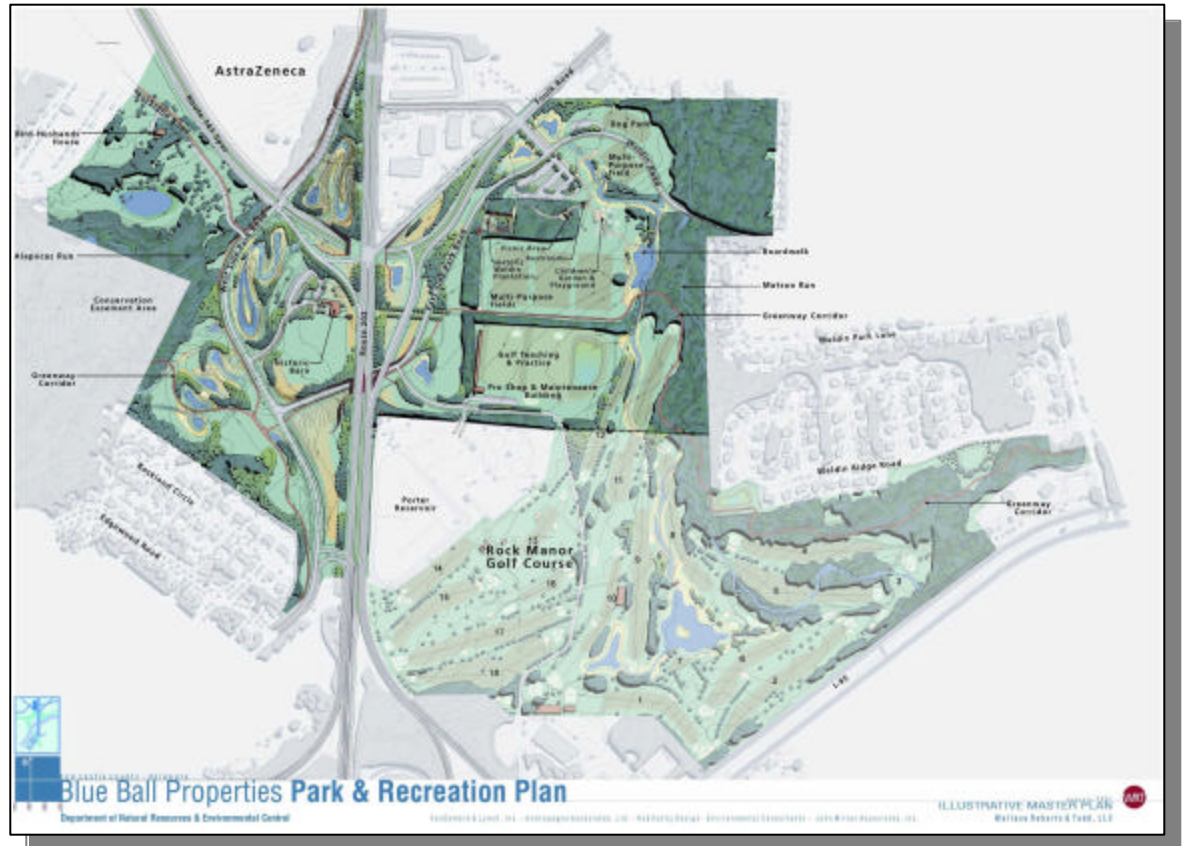


INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

Christina Parkway Bikepath – Improvements will include an extension of the existing bikeway along northbound Elkton Road, and construction of signalized pedestrian crossing at the intersection of Elkton Road and Christina Parkway.

SR141 / US202 Area Improvements – The improvements will be incorporated into the overall Astra/Zeneca project.

- West Side Park Improvements
- East Side Park Improvements
- East Side Wooded Pathway



Wilmington Bike Routes – (no pictures available) – Bicycle improvements within the City of Wilmington are under development.

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

INDIVIDUAL PROJECT SEGMENTS	PHASE	FUNDING	EST. COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Bicycle / Pedestrian Improvements		80% F – 33D 100% ST	2,441 1,939		70 1,939	171	200	2,000
20-012-01 US 13 – Loockerman St. to Townsend Blvd.	PE R/W C	80% F – Q20 100% ST 80% F – Q20	173 90 882	173 90		882		
US 13 – Townsend Blvd to DSU	PE C	80% F – Q20 80% F – Q20	200 845		200		845	
21-011-03 SR 2/SR141, Pedestrian Crossing Prices Corner	PE R/W C	80% F – Q24 100% ST 80% - Q23	150 100 580	150	100	580		
20-015-03 SR 72 Bikeway extension	PE R/W C	80% F – 33D 100% ST 80% F – 33D	106 35 385	106	35	385		
21-011-01 Paper Mill Road (SR 72) bike lanes	PE R/W C	80% F – Q24 100% ST 80% F-Q24	292 55 1,600	292 55		1,600		
20-015-01 Iron Hill Bikeway	PE R/W C	80% F – Q21 100% ST 80% F – Q21	140 121 814	140 121		814		
20-013-05 Del Tech – Georgetown SR 18	C	80% F – Q25	295			295		

All \$ X 1,000

INTERMODAL/MULTIMODAL TRANSPORTATION IMPROVEMENTS (CONTINUED)

INDIVIDUAL PROJECT SEGMENTS	PHASE	FUNDING	EST. COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Plantations Road Bike Lanes	PE R/W C	80% F – 33E 100% ST 80% F – 33D	55 15 186		55	15	186	
20-013-03 SR 1 through Dewey Beach	PE C	80% F – Q05 80% F – Q05	250 1,000		250			1,000
20-015-02 Christina Parkway Bike Path	PE C	100% ST 80% F – 33D	44 163	44		163		
SR141 / US202 Area Improvements								
West Side Park Improvements	PE C	100% ST 100% ST	400 3,294		400 3,294			
East Side Park Improvements	PE C	100% ST 100% ST	232 3,194		232	3,194		
East Side Wooded Pathway	PE/C	100% ST	323				323	
Wilmington Bike Routes	PE/C	80% F – Q23	<u>600</u>	_____	_____	_____	_____	<u>600</u>
TOTAL			20,999	1,171	7,457	6,403	2,368	3,600

All \$ X 1,000

OTHER PROJECTS TO BE IDENTIFIED

PROJECT SCOPE/DESCRIPTION: Funds have been allocated in this program for those projects identified through the Project Development Committee that will improve the existing transportation system and/or infrastructure without having to resort to expansion. Listed below are examples of projects that could be funded from the Program Development section of this document. Although a project is scheduled for completion in Program Development or study, in no way does this guarantee the project will be scheduled for design and construction. The study may indicate that the improvements are not needed or other projects introduced could have a higher priority rating.

Project	FY 2002	FY 2003	FY 2004	FY 2005-2007
Carter Road Extension	-----			
Bassett Street Intersection		-----		
Kenton Rd, SR 8 to Chest. Gr.				-----
B&O Railway Corridor (Wilmington Area Studies)			-----	
North East Front Street, Milford			-----	

Funding Program: Road System - Other

FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
100% ST	8,639	1,019	1,463	1,033	1,802	3,322
80% F – Q24	<u>47,184</u>	<u> </u>	<u> </u>	<u>7,197</u>	<u>13,390</u>	<u>26,598</u>
TOTAL	55,823	1,019	1,463	8,230	15,192	29,920

All \$ X 1,000

PAVEMENT REHABILITATION - OTHER

PROJECT SCOPE/DESCRIPTION: As specific project scopes are developed, funds within this allocation are programmed according to the appropriate road system category.

PROJECT JUSTIFICATION: To improve deteriorating poor pavement conditions throughout the State.

County: Statewide
Municipality:
Funding Program: Road System – Other
Functional Category: Preservation
Representative District: Statewide
Senatorial District: Statewide

INDIVIDUAL PROJECT SEGMENTS	PHASE	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005-2007
				7/00-6/01	7/01-6/02	7/02-6/03	7/03-6/04	7/04-6/07
				TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
Other Pavement Rehabs	PE/C	100% ST	720			360	360	
		80% F – Q24	<u>7,657</u>	_____	_____	<u>817</u>	<u>1,440</u>	<u>5,400</u>
		TOTAL	8,377			1,177	1,800	5,400

All \$ X 1,000

PAVEMENT RESURFACING –OTHER (NEW TECHNOLOGY)

PROJECT SCOPE/DESCRIPTION: Resurfacing of all State maintained roadways except for Suburban Streets. Specific locations are determined after each spring's inspection.

There are many types of resurfacing treatments, which may vary by materials and depth of improvement. Listed below are some of the most typical, including width of improvement and estimated cost per mile. In addition to these baseline estimates an additional 10% is normally added for construction engineering and/or the management expenses associated with a contract.

Treatment	Width	Cost/Mile
Full width surface treatment	20 ft.	\$10,000
3 inch hot-mix overlay with minor patching & 10 foot shoulders	24 ft.	\$210,297
3 inch hot-mix overlay with minor patching	20 ft.	\$152,250
2 inch hot-mix overlay with minor patching	20 ft.	\$104,000
Microsurfacing - two courses	20 ft.	\$30,000

All costs are construction costs

County: Statewide
Municipality:
Funding Program: Road System – Other
Functional Category: Preservation
Representative District: Statewide
Senatorial District: Statewide

FMB ID OR PROJ #	INDIVIDUAL PROJECT SEGMENTS	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
	Resurfacing – New technology	100% ST	1,385		1,055	55	55	165
	TOTAL		1,385		1,055	55	55	165

All \$ X 1,000

SAFETY, INTERSECTION IMPROVEMENTS**PROJECT SCOPE/DESCRIPTION:**

- A. Safety Improvements: Selected safety improvements statewide. These locations are identified through the Safety Management Program.
- B. Rail Crossing Safety: Selected safety improvements at highway/rail crossings throughout the state as identified by the Safety Management Program.
- C. Intersection Improvements: Undesignated intersection improvements statewide.

PROJECT JUSTIFICATION:

- A. Federally mandated safety improvement program.
- B. Federally mandated safety improvement program.
- C. Intersections throughout the State need to be upgraded as funding permits to alleviate congestion and provide safer turning movements.

County: Statewide
Municipality:
Funding Program: Road System – Other
Functional Category: Management
Representative District: Statewide
Senatorial District: Statewide

INDIVIDUAL PROJECT SEGMENTS	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Safety Improvements - HSIP Program	90% F – Q21	11,040	860	1,740	884	1,889	5,667
Rail Crossing Safety	90% F – Q27	5,000	1,250	625	625	625	1,875
	100% ST	800	200	100	100	100	300
Intersection Improvements/Safety Improvements	100% ST	1,160	285	125	125	125	500
	80% F – Q24	<u>5,000</u>	<u> </u>	<u>2,500</u>	<u>500</u>	<u>500</u>	<u>1,500</u>
	TOTAL	23,000	2,595	5,090	2,234	3,239	9,842

All \$ X 1,000

TRANSPORTATION ENHANCEMENTS

Project Scope/Description: The Transportation Enhancement (TE) Program includes bicycle and pedestrian, landscaping, historic restoration, etc. to existing transportation facilities. An Advisory Committee consisting of DelDOT, MPOs, and private citizens recommends locations for this program to the Department.

Project Justification: Federally mandated program for non-traditional enhancements to transportation infrastructure and services

Typical TE program projects from previous years are shown below.

Cape Henlopen State Park Bicycle Improvements***Bringhurst Woods Bicycle/Pedestrian Improvements***

TRANSPORTATION ENHANCEMENTS (CONTINUED)

Mispillion Greenway, Milford



Bethany Beach Bicycle Improvements



TRANSPORTATION ENHANCEMENTS (CONTINUED)

INDIVIDUAL PROJECT SEGMENTS	FUNDING	EST COST TO COMPLETE IN TODAY'S \$	FY 2001 7/00-6/01 TOTAL	FY 2002 7/01-6/02 TOTAL	FY 2003 7/02-6/03 TOTAL	FY 2004 7/03-6/04 TOTAL	FY 2005-2007 7/04-6/07 TOTAL
Program	80% F – Q22	31,867	4,735	7,600	3,912	3,905	11,715
	T-5307	547		79	88	95	285
	100% ST	1,633		1,633			
Fox Point Park	100% ST	500	500				
Rehoboth Visitors Center	100% ST	<u>250</u>	<u>250</u>				
	TOTAL	34,797	5,485	9,312	4,000	4,000	12,000

All \$ X 1,000